



AB-RTC-PRM-ANM

AleoBlue™ Real Time Clock, Plug-In Network Time Authority with Range Extender

DESCRIPTION

The AleoBlue™ AB-RTC-PRM-ANM Real Time Clock is the time authority for an AleoBlue Bluetooth® NLC network. It provides a single, accurate source of real time so that every scheduled event in the project — on/off, scene changes, and trim or dimming setpoints — runs at the correct local time, and it restores accurate time to the network automatically after a power outage. A built-in super capacitor maintains timekeeping for up to seven days with no battery to replace, and an integrated range extender with a high-gain external antenna strengthens the mesh across long distances. Installation is plug-and-play: thread on the antenna and plug into any standard 120V NEMA 5-15 receptacle — no wiring, no electrician, and no control cabinet. One AB-RTC-PRM-ANM is recommended for every AleoBlue project that uses scheduling.

APPLICATIONS

Indoor: Retail, education, hospitality, corporate, warehouse, self storage — uses in-node scheduling (INS) and does not have a gateway.

SPECIFICATION FEATURES

WHY A REALTIME CLOCK?

AleoBlue™ devices run schedules locally (in-node scheduling) and need a shared time source. Without a gateway or Real Time Clock the network can drift up to ~2 minutes a month and loses time after an outage until a phone re-syncs it. The AB-RTC-PRM-ANM holds accurate time through outages of up to 7 days and re-syncs the whole network when power returns. Achieve scheduling features and sequence of operations without a gateway.

OVERVIEW

- Easy to install, Plug 'n' Play design — no hardwiring required
- Commission with AleoBlue™ iOS app + web app
- Integrated range extender / mesh relay
- 7-day super capacitor timekeeping backup (no battery to replace)
- 350ft. Bluetooth® range max* with external high-gain antenna
- One per project (only one Time Authority per project)

TIMEKEEPING

- Supplies synchronized real time to every device in the network for in-node scheduling
- Restores correct time to the network automatically when power returns

CERTIFICATION

- ETL Listed to UL 60730-1 / CSA E60730-1
- FCC compliant
- Bluetooth® SIG qualified
- AleoBlue™ NLC system is DLC NLC qualified

WARRANTY

5-year Limited Warranty. See warranty documentation for more information.

ORDERING INFORMATION

EXAMPLE: AB-RTC-PRM-ANM

AB	RTC	PRM	A	N	M
Communication Type / System	Sensor / Node Type	Mounting	Power	Designator	Designator
AB AleoBlue™	RTC Real Time Clock	PRM Plug Receptacle Mount	AC AC Power (120V input)	N Non-dimming	M Straight-blade plug (NEMA 5-15P), white

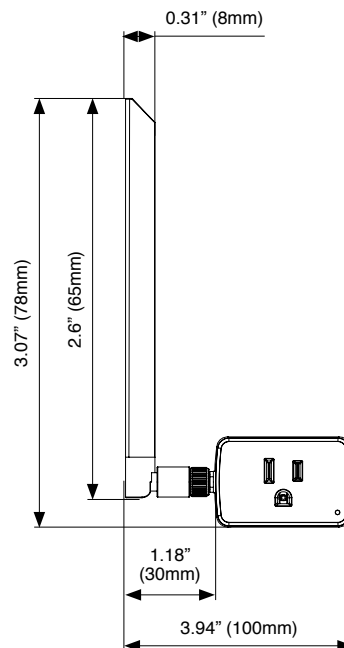
Specifications and Dimensions subject to change without notice.

PERFORMANCE SUMMARY

Input Voltage	120V
Operating Temperature	14°F to 104°F (-10°C to 40°C)
IP Rating	IP20, indoor/dry
Pass-Through Receptacle	Unswitched pass-through
Max. Bluetooth® Range*	350ft.
Power Consumption	0.35W-0.4W
Weight	78.2g incl. antenna
Dimensions	3.94" × 3.07" (100mm × 78 mm) overall incl. antenna

*Bluetooth® Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for range accuracy.

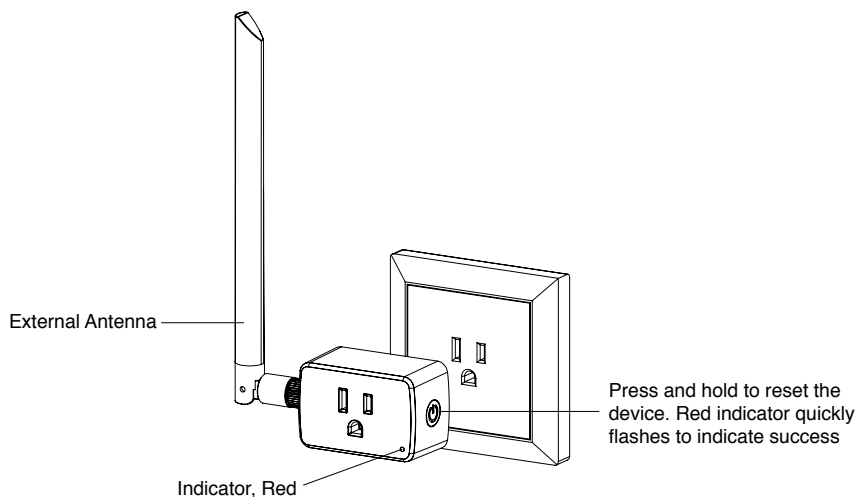
PRODUCT DIMENSIONS



PLACEMENT

- Install one AB-RTC-PRM-ANM per AleoBlue™ project, in a central location relative to the zones it serves.
- Plug into a receptacle within direct radio range of at least two other AleoBlue™ devices.
- Choose a receptacle that is always powered — never one controlled by a switch, timer, occupancy sensor, or plug-load controller.
- Mount the antenna vertically, in open air. Do not locate the device inside metal enclosures, behind metal shelving or equipment, or near Wi-Fi routers and microwaves.
- Range is highly site-dependent; run the AleoBlue™ app Mesh Quality test after commissioning and confirm 100% before relying on schedules.
- Enable Relay function in the AleoBlue™ app after provisioning/adding this device.

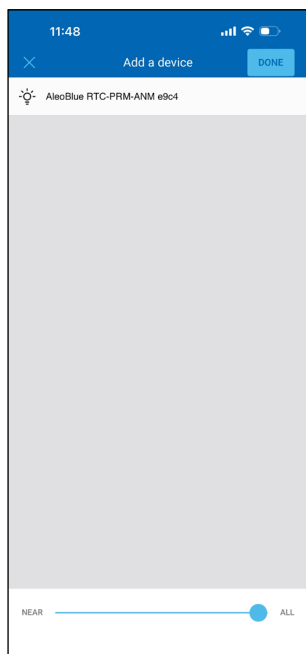
PRODUCT DIAGRAM



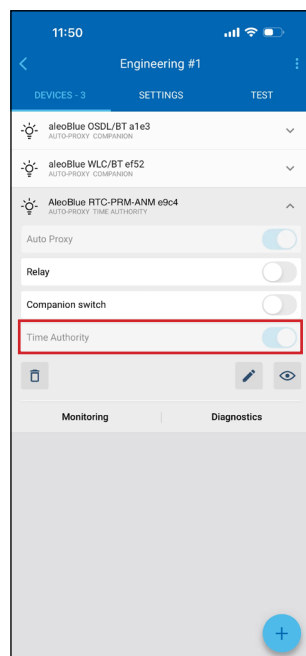
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COMMISSIONING

Adding a Real Time Clock to a project allows it to act as the source of the current time that is shared with other devices in the network.



Choose the Zone the device is physically located. Go to the "DEVICES" tab. Add the device into this Zone.



Select the device you just added, and tap the "Time Authority" toggle switch to enable it as Time Authority.

NOTE: One project can only have one Time Authority.

ADDING / PROVISIONING TO ALEOBLUE™ WIRELESS BLUETOOTH® MESH NETWORK

Utilize the AleoBlue iOS app to provision and add to Bluetooth® Mesh network.

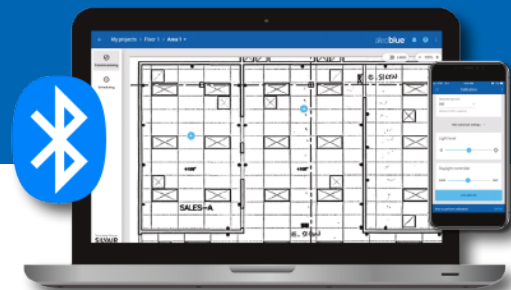


Download the iOS
AleoBlue App



Watch the
Commissioning
Tutorial Video

ALEOBLUE WIRELESS BLUETOOTH® CONTROLS

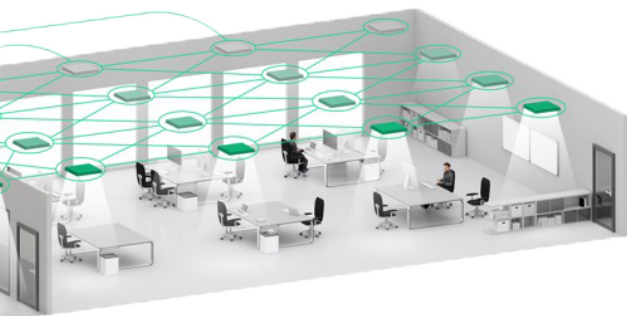


The AleoBlue is a complete solution for managing connected lighting systems using a Bluetooth® NLC lighting network. This enables seamless implementation of simple to complex lighting control scenarios without specialized training or lighting control engineering expertise.

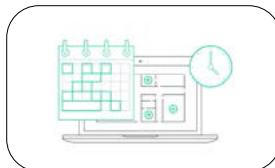
DLC NLC Qualified.

FEATURES AND BENEFITS

- Lighting Zones / Grouping
- Manual control of individual lights
- On Power up Behavior
- Zone Linking
- High-End Trim
- LLLC (Luminaire Level Lighting Controls)
- Energy Monitoring
- Optimized Energy Consumption
- Less Hassle with On-Site Adjustments
- More Savings
- Increased Safety
- More Flexibility
- Intuitive and user-friendly web and iOS apps
- No specialized training or lighting control expertise required
- Optimized for commercial spaces of any size
- No additional wiring or central control box
- Customizable lighting control parameters
- Future proof with Software Updates
- Multiple Zone Configurable
- Built-In Scenarios + Customization



SCHEDULING



SCENES



BLUETOOTH® NLC TECHNOLOGY ADVANTAGES



The fastest low-power communication



Scalability to thousands of devices



The most advanced encryption standards as well as the cutting-edge device authentication

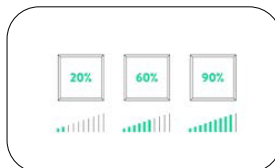


No single point of failure (no central device)

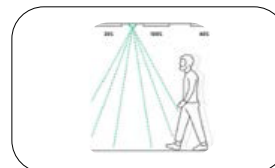


Compatibility with a widely available devices (smart phones & tablets – both with Bluetooth® 4.0 and Bluetooth® 5)

HIGH / LOW END TRIM

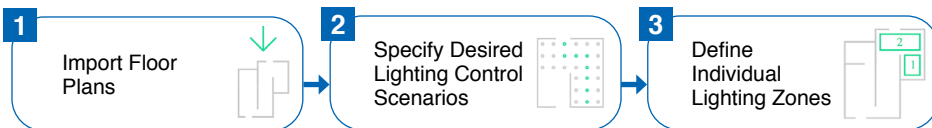


OCCUPANCY SENSING



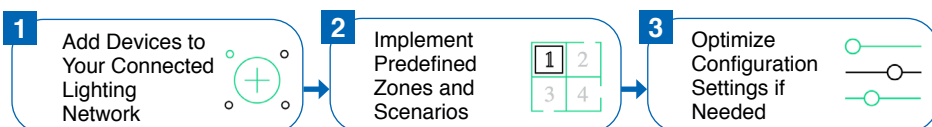
PLANNING

Remote preparation of a retrofit project with the use of our web app. Uploading floor plans, defining individual lighting zones and choosing lighting control scenarios.



IMPLEMENTATION

Adding lighting devices to the Bluetooth® NLC network on-site with the use of an iOS app. Customization and calibration of lighting control parameters during and after the commissioning process. Defining scenes for specific working activities.



PROVISIONING / CONFIGURATIONS

The Bluetooth® NLC Node is in the Unprovisioned Mode until it is provisioned by a "Provisioner", which typically is a smart phone with a Bluetooth® NLC compatible app.